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DEFORESTATION IN COLONIAL KUMAON: 1815 - 1947

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IRIS Summary

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The forests of the Kumaon Himalayas offer a good case-study of the kind of institutional breakdown which ultimately leads to deforestation. Kumaon was under the rule of *Gurkha* rulers before the British conquered the region in 1815. Not much is known about the region of the *Gurkhas,* but for the most part, forests were managed by local communities of users relying on time-honored norms of social and economic conduct. British conquest marked the beginning of a new era in the use and management of forests in Kumaon. While administration by a formal forest department had to wait till 1868, the pace and scale of exploitation of forests underwent dramatic escalation in the preceding half-century. By 1868 a formal forest administration had been installed to take charge of the Kumaon forests. This administration could lean on newly created forest legislation to enforce the new regime of forest property.

A significant consequence of the ascendancy of state property in forests was the graduate erosion of cooperative arrangements for the use and management of forests which had held sway in the earlier period. As the decades of colonial rule unfolded, the control of the state over the forests of Kumaon grew, while local control of forests by villagers declined.

The compromising of traditional rights touched off a series of forest protests in the early decades of this century. The struggles that took place between the new administrators and local user communities over the use of forests is an early chapter in contested property rights in the area of environmental resources. It illustrates the process through which a certain regime of property in forests (cooperative arrangements) lost legitimacy and another (state ownership) gained ground. In the event, not only did direct state control of forests grow over time; local users lost their erstwhile relationship to accessible forests - woods outside the purview of direct state control - and often plundered them at will.

Institutionalerosionturnedinto institutionalconfusionwhen local users managed to win certain rights for themselves once again in the 1920s. The old norms were no longer in place to make the use of forests sustainable. This is not to imply that all the deforestation which took place in this period can be attributed to such "institutional" changes. Much of the blame has to be shouldered by commercial forces which increasingly acquired an interest in the exploitation of the Kumaon forests. This, and population growth, are frequently cited as explanations of deforestation in diverse environments. However, the complex matrix of social and political factors which make up the institutional fabric of sustainable resource-use is often overlooked. The case study of Kumaon on which this paper is based, reveals the centrality of changes in this institutional matrix to any study of deforestation.

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Working Paper submitted to IRIS

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DEFORESTATION IN COLONIAL KUMAON: 1815-1947

A study in the erosion of cooperative arrangements for forest use and management

Introduction

This paper is concerned with the forces underlying deforestation. It focusses on those institutional breakdowns which create conditions in which indiscriminate, and eventually self-destructive, use of forests is encouraged. To achieve its goal the paper describes research done on the Kumaon Himalayas of North India.' (See Map in the appendix.)

The forests of the Kumaon Himalayas offer a good case-study of the kind of institutional breakdown which ultimately leads to deforestation. Kumaon was under the rule of Gurkha rulers before the British conquered the region in 1815. Not much is known about the reign of the Gurkhas. However, formal forest administration by the state was conspicuous by its absence. There is some evidence that the state,-offered its legitimacy to local rules and customs through which forests were used and managed. For the most part, forests were managed by local communities of users relying on time-honoured norms of social and economic conduct.

British conquest marked the beginning of a new era in the use and management of forests in Kumaon. While administration by a formal forest department had to wait till 1868, the pace and scale of exploitation of forests

underwent a dramatic escalation in the preceding half-century.* By 1868 a formal forest administration had been installed to take charge of Kumaon forests. This administration could lean on newly created forest legislation to enforce the new regime of forest property.

A significant consequence of the ascendency of state property in forests was the gradual erosion of cooperative arrangements for the use and management of forests which had held sway in the earlier period. As the decades of colonial rule unfolded, the control of the state over the forests of Kumaon grew, while local control of forests by villagers declined.

In the event, dispossessed users relinquished the sense of responsibility which had hitherto bound their interests to the continued health of the forests. State property in forests had "won the race" with traditional cooperative arrangements. Traditional users were no longer the "managers". They increasingly resorted to indiscriminate use of resources in forests to which they had access.

This is not to imply that all the deforestation which took place in this period can bc attributed to such "institutional" changes. Much of the blame has to be shouldered by commercial forces which increasingly acquired an interest in the exploitation of Kumaon forests. This, and population growth, are frequently cited as explanations of deforestation in diverse environments. However, the complex matrix of social and political factors which make up the institutional fabric of sustainable resource-use is often

overlooked. The case-study of Kumaon on which this paper is based, reveals the centrality of changes in this institutional matrix to any study of deforestation.

The rest of this paper is arranged as follows. I begin by drawing a profile of deforestation in the Kumaon Himalayas. The focus of my study of Kumaon forests is historical. However, no aggregate data on tree cover or rates of deforestation are available for the Colonial period. I will be forced to rely on more contemporary figures to give the reader a sense of the depth of the problem.

This will be followed by an account of the condition of forests soon after colonial conquest, basing my account primarily on the writings of the early administrators and civil servants. These accounts are to be found in Gazetteers, Forest and Land Settlement Reports[3], published proceedings of the Forest Department of the Government of India and that of the Northwest Provinces (later, United Provinces), reports of forest conferences, and occasional travelogues written by administrators.

I will then briefly review the history of formal forest management in Colonial Kumaon. This will be followed by a section on forest commons[4] in Kumaon. Some of the key changes in forms of cooperation will be noted. Next, the mind-set which British administrators brought to forest management in Kumaon will be analyzed, focussing in particular on their perception of cooperative arrangements,

a mode of local management of forests whose existence they often grudgingly acknowledged.

The paper will end with a summary of the chief conclusions of the study.

Deforestation: The extent of the problem in Kumaon

Data on the extent of deforestation during the Colonial period is almost non-existent. In fact, before the 1860s there was never any talk of conservation in state documents. Thus, the question of collecting data on the extent of forest cover did not arise. However, even after the 1860s and the inception of the Forest Department, data on the extent of forest cover was not gathered.

In Independent India too, no systematic figures are available till the 1970s. The environmental movement and developments in satellite technology have encouraged the collection of forest data in recent decades:, Tn the absence of numbers from the past, one is forced to rely on contemorary figures and draw inferences from them.

Perhaps the most reliable set of data on forests is that gathered through -satellite surveys. Since 1987, the Forest Survey of India has been gathering data on forest cover once every two years. According to a 1993 assessment 19.47% of India's land area is covered with forests. (This may be compared with the recommended proportion of 33%.) Less than two-thirds of this area is the area under "Dense" forest.'

The province of Uttar Pradesh, where Kumaon is located, has only 11.5% of its area under forests. The three main

districts - Almora, Nainital, and Garhwal - which comprise the area which used to come under Kumaon Division during British rule, have forest cover of 47.11%, 52.58%, and 58.42% respectively. These numbers are modest for mountainous regions which have traditionally been covered over with forests. In fact, the situation is quite alarming.

Condition of forests in the early decades of British rule

One of the earliest sources of information about the condition of forests in Colonial Kumaon is a set of files which record a controversy surrounding the supply of fuel (charcoal) to blast furnaces near iron mines in Kumaon.[6] Even though the focus of the controversy is not deforestation per se, it is illuminating to summarize its chief opinions.

A geologist from Britain (W.J.Henwood) had visited the area to make an assessment of the availability of fuel to fire blast furnaces which the government was planning to start in the region. In his final report to the government he claimed that iron mines in Kumaon did not have an assured source of supply of charcoal because of the paucity of forests. However , despite an overall negntivc assessment, Henwood's account is littered with descriptions of the forests such as the following:

> "The neighborhood forests are not extensive, but the oaks in it are of magnificent size."[7]

and again,

> "Ample forests abound in the neighborhood..."[8]

His Testimony is full of such ambivalence.

The contemporary Commissioner of Kumaon, J.H.Batten, challenged Henwood's opinion and in a note to the Secretary of State, had this to say'about the forests-that he was witness to:

> ". ..the forests of Kumaon and Garhwal are boundless, and, to all appearance, inexhaustible; and...they require no human care to preserve them; while on the other hand, every encouragement ought to be given to their diminution for the sake of inhabitants..."[9]

The same author observes:

> ". ..great forests... lie at the base of the Himalayas, where the mountains rise from the plains. This great forest is one of the best known and most remarkable features of Upper India. I may safely say that this forest is confessedly one of the most extensive in the world. "[10]

Furthermore, as Batten and other administrators of the area pointed out, Henwood's assessment was based on a very limited survey, in which he ignored forests which were more than 10 or 12 miles from the iron mines. For instance, Strachey, an administrator from Nainital, observed in a note responding to Henwood's claim:

> "The part of Kumaon which is the best known to European travellers is naturally more deficient in timber than perhaps any part of the province." [11]

Again,

> "...there is certainly no mine within ten or fifteen miles of which immense forests do not exist, and the most important mines are very much closer than this to supplies of fuel, which, for all practical purposes, I confidently declare to be inexhaustible."[12]

The area around the mines had been particularly bereft of forests as this observation testifies:

> "In the neighborhood of the iron mines...the mines have undoubtedly made great havoc among the forests of pine... and the near vicinity of mines has been...greatly denuded." [13]

Mining operations had been one of the earliest causes of deforestation in Kumaon. Yet, there was commercially valuable vegetation not too far from the mines.

Batten concludes:

> ". ..I think it my duty to state emphatically that Mr. Henwood, in his final report, is, I must say, unaccountably incorrect in his low estimate of the fuel capabilities... Assuming that Sal wood is not to be touched as fuel, I fully believe that the lower hills and Bhabur, at every iron locality...can supply sufficient charcoal for the largest English furnace for a hundred years to come; and that the forests are self-renewable, without limits in that climate."[14]

In fact, forests in Kumaon were so extensive that Henry Ramsay, Commissioner of Kumaon during the 1850s, recommended reducing their extent in order to allow cultivation by villagers:"

> "In most parts of the district, where cultivation bears a small proportion to the wasteland, the greater inroads made on the forests the better, because extensive undisturbed jungle harbours so many deer, bears and tigers, that the animals soon become more powerful than the villagers... The only way of keeping down the destructive denizens of the forest is to cut down patches at different places..."[16]

Ramsay's views are echoed by Strachey:

> ". ..Kumaon and Garhwal are covered as a general rule, with forests. The absence of-forestisthe exception... The apprehensions that have been expressed, that the forests are being rapidly destroyed, are altogether visionary. The forests are so extensive, that I quite agree with Capt. Ramsay, who says that the "the greater the inroads made upon them the better"... any means would be very unfortunate in their results which would lead the people to suppose that the government viewed with disfavour the reclaiming of the jungles. "[17]

Frequently, the government made grants of land to individuals in forest areas adjoining the villages, with a view to increasing the amount of revenue collected. Such

transfers came at the expense of the village forest commons, as one researcher noted as late as in the 1930s:

> "Outwardly, the state seems to be quite alive to these benefits of forest preservation, but as regards its actual policy it is perhaps less enlightened. The policy of making new grants in forest land adjoining the villages has been responsible for the destruction of much valuable forest. The people who actually secure these grants are not poor and needy, but merely a few grasping individuals who can easily satisfy the lower grades of the state officials. Every new grant in a village means a curtailment of the common rights of the village community. Such grants have become a fruitful source of dissension, and are weakening the strong clan-spirit of the village."[18]

No less a figure than Dietrich Brandis, the first Inspector-General of forests in British India, argued for an increase in the consumption of firewood and charcoal for domestic fuel, in order to conserve cowdung (for manure):

> "...even if the whole of the people took to using firewood.. .the demand for firewood would not be sufficient to utilize the entire mass of the less valuable woods which are the companions of teak and other valuable kinds of trees in the Indian forests."[19]

We may safely conclude, though we cannot have detailed data of the kind that are gathered today, that before the British brought formal state administration to the Kumaon forests, they were quite extensive. It wouldn't be too hazardous to go along with an opinion such as the following:

> "Considering the limited purposes for which timber and fuelwood were required and in the context of a relatively smaller, technologically undeveloped society, the exploitation of the forests for wood in the Himalayas and the *terai* must necessarily have been restricted during the seventeenth and eighteenth centuries."[20]

where deforestation was noticed, the causes were traceable to mining or extension of agriculture. There is next to nothing in the official records which suggests that

forests were in a state of great neglect, or that they were being ravaged by local user communities, when they first came under British control. The early administrators of Kumaon were extremely confident about the extent of good forests, as the above accounts demonstrate.

History of forest management in Colonial Kumaon: A review

The British took over the administration of Kumaon in 1815. The region that came under British control fell to the east of the river Alaknanda. (See Map.) The region to the west of the Alaknanda river was restored to the erstwhile *Rajah* of Garhwal and came to be known as the state of Tehri-Garhwal. The part of Garhwal to the east of the Alaknanda river came to be referred to as British Garhwal and was administered by the Commissioner of Kumaon.

Formal management of forests started with British rule. But it took nearly a half-century before the new administrators felt the need to create a separate Forest Department in India. It was in the year 1800 that the East India Company (the chief imperial power still resided with them) first showed interest in Indian forests when it appointed a Commission to enquire into the availability of teakwood in the Malabar forests of South India.

Between 1800 and the middle of the nineteenth century, large areas of forests in Kumaon were felled, primarily to obtain timber for ship-building and the manufacture of railway sleepers. There was no attempt at forest conservation or formal management.[21] It is fair to assume that the motivation for conservation and formal management

stemmed from the escalating imperial demand for timber.[22] The aim of the new rulers was to put the management of forests on a new, "scientific", footing in order to maximize the long-run output of timber for commercial ends.[23]

If the Working-Plans of the Forest Department are any indication, the department was, among other things, a profit-making venture. It invested considerable sums of money to increase the production of timber from the forests and earned handsome profits from the sale of the produce to private and public buyers. This manner of working the forests was new to Kumaon and to India. Hitherto, it was the subsistence needs of the local population that had largely determined the pattern of resource-use.

The first significant administrative step in the forest history of Colonial Kumaon was Traill's 1823 revenue settlement, known popularly as the ***Assi sal bandobast,*** because the year 1823 coincided with the year 1880 according to the local calendar. Apart from addressing issues of revenue, the settlement consisted of the demarcation of village boundaries within which each -villager 'was allowed to exercise rights of pasture and wood-cutting. These boundaries came to be referred to as the ***Assi sal*** boundaries in later forest department documents.

However, Traill's settlement made no arrangements for conservation of forests. The decades following the settlement were marked by a rapid escalation in the exploitation of forests for commercial purposes. The demand for timber for railway sleepers yrew rapidly after 1850.

According to a gazetteer large "areas were leased out to contractors who cut and removed what they liked."[24] The years between 1855 and 1861 were particularly bad, marked by uncontrolled felling of Sal (Shorea Robusta) forests. A Nainital gazetteer from 1904 criticized the entry of contractors and remarked:

> ". ..to them uncontrolled liberty was given to cut where and how they pleased, with the result that large number of trees were felled and for want of transport were left lying in the forests. To such an extent was this reckless felling carried out during this period that for several years after the control of the forests was taken in hand by the Commissioner, the energy of the officials was directed towards extracting the timber thus left to the contractors..."[25]

In response to this crisis, Henry Ramsay, the then Commissioner of Kumaon, took charge of the situation in 1862 and took prompt steps to stop further denudation. The beginning of forest "conservancy" (as it was then called) in Kumaon, can be dated to the set of measures that were taken by him..

In 1865 the areas under Sal were declared reserved[26] forests. The same year also saw the creation of the first important piece of forest legislation in India, the Indian Forest Act, 1865. The act allowed the colonial rulers to declare any forest as "Government Forest". This act marked the inception of formal state property in forests in India. By 1868, Kumaon had a regular forest department with Major Pearson as the Conservator of forests. Forest management in Kumaon now had a formal apparatus for conservation that claimed to go beyond the commercial goals which had governed forest policy in the period before 1862.

After 1878 the Conservator of forests in Kumaon could rely on stronger legislation that was passed in that year. Under the Indian Forest Act, 1878 the Government of India gave itself the power to classify forests as "Reserved", "Protected", or "Village Forests", with diminshing degrees of state control.

The most significant implication of the act was the new right that the state got to create reserves in areas of "good" forests. Grazing or wood-cutting by local users in such areas were now a punishable offence. Through this act the state had given itself the right to gradually take over as much of the good forested land from village communities as it could.

Though attempts at cordoning off certain species of forests had been made earlier, the first "Reserved Forests" - from which local users were excluded altogether - were created after the 1878 act.

The category of "Village Forests" included a provision for the creation of forests for the exclusive use of villagers in the future. In practical terms, it meant the forests within the *Assi sal* boundaries to which local users had free access.

"Protected Forests" was more or less a residual category after the entire non-cultivated land had been classified as being under reserved forests or within the *Assi* Sal boundaries. Thus, it included, among other things, the omnibus category of "wastelands", which finds frequent mention in the documents. In fact, by an infamous

notification in 1893, "all the forests and wastelands of the districts of Almora, Nainital, and Garhwal not forming part of the measured areas-of villages or of the reserved forests were declared to be protected forests under section 28 of the 1878 Indian Forest Act."[27] All land - including such areas as came under water-bodies, high-mountain pastures and mountain peaks - other than that already classified as "reserves" or land within the Assi *sal* boundaries of villages - came to be classified as "Protected Forests** in which villagers had limited rights of user in certain parts.[28]

The implications of this step could be quite serious, because the 1878 Act allowed the government to declare any part of the protected forests as reserved. This entailed another potential encroachment on the customary rights of local users. In fact, between 1893 and 1910 a large proportion of the area under protected forests was brought into the "reserved" category.

The extension of land under protected forests was also accompanied by new 'restriction-s '-on rights- and concessions of local users in these forests.[29] Many species of trees to which local users had access hitherto were brought under the "reserved" category.

Between 1911 and 1915 more than 3000 square miles of protected forests (that is, most of the area under protected forests) in Kumaon were transferred to the category of reserved forests. By the time the process of reservation of forests had been complete, local users had been left with

little more than the forests that fell within the *Assi sal* boundaries of the villages.

The encroachment of the state on lands hitherto held in common did not take place unchecked. Even as early as the end of the nineteenth century forest protests and struggles had started in Kumaon.[30] Moreover, administrators had complained repeatedly of problems in the implementation of the new forest laws. Apparently, the enforcement costs, to put the matter in the parlance of contemporary economics, of the new rules of forest property were quite high. In the event, property rights were viciously contested, with great costs to the forests themselves. Environmental quality was compromised because of social conflicts over the resource, embodied in the clash of property regimes, the old arrangements of loosely held common rights in the forest being challenged by the ascendancy of state property.

The last stage of reservation in the 1910s triggered off a fresh bout of forest protest in 1916. Reacting to usurpation of their traditional rights, villagers resorted to large-scale burning of forests. In Nainital district alone 24,300 hectares of forests were destroyed in the fires.[31]

Within five years of the 1916 protests, in a recurrence of forest protest, there were 317 fires all over Kumaon Division, affecting over 800 sq km of forests and resulting in the destruction of over 100,000 "flourishing trees".[32]

The spate of forest protests resulted in the appointment of a "Forest Grievances Committee" in 1921.

After looking into complaints of local users, the committee recommended, among other things, that the Forest Department provide for the needs of traditional rights-holders. The committee re-classified Kumaon forests into Class I and Class II forests. The former were placed under the administration of the District Magistrate (that is, under Revenue administration) while the latter were put in the charge of the Forest Department. P'urther, it recommended that the forests left for villagers be placed under a system of *Van Panchayats* (local forest government) . *Van Panchayats* were created in 1930-31 to provide village communities with forested land for pasture and wood-cutting.

However, the administrative conflicts between the Revenue and the Forest Departments resulted in the deterioration of the forests in the hills. Local users were still not adequately provided for.

Thus, it was no surprise when ripples of Gandhi's Civil Disobedience Movement in 1930 were felt in Kumaon. Once again there were forest fires in the Himalayas. In 1938 the question of rights and-concessions was raised yet again. This time the administration responded by setting up three distinct district committees for Almora, Nainital, and Garhwal to investigate into villagers' rights. Grazing and wood-cutting rights were relaxed in both Class I and Class II forests.

However, the decades that followed revealed that hill forests suffered on account of these concessions. Oak forests, in particular, suffered extensive damage. It was in

the long-run self-interest of local users to use the forests sagaciously. But they were led by more short-term considerations. Why did this happen?

A plausible explanation would run as follows. Traditonal forms of conservation and sustainable use of forests had suffered a setback with the onset of state ownership and management of forests since the middle of the nineteenth century. Thus, even when local communities got back the access to forests which had been their traditional prerogative, they could not make full use of the opportunity. In over a century of British rule local autonomy had eroded. So had norms and customs in relation to use of resources. These practices could not be restored so easily. Forests were the inevitable victims of institutional confusion.

Cooperative management of forests could not he restored even in post-independence India. Moreover, the absence of a trusting relationship between local users and the authorities persisted.[33] In large measure, the situation in contemporary Kumaon is not--drastically different. If any thing, it is worse.

However, from time to time, different forms of cooperative management emerged in Kumaon even during the Colonial era. Though the instances were rare and often the experiments ended in failure, they offer interesting case-studies in cooperative management of forests.

Forest commons in Colonial Kumaon

Accounts of forest commons in the writings of British civil servants are scattered, and frequently not complimentary. Moreover, cooperative arrangements, being of a largely customary nature, were not formalized through the kind of legislation and paper-work that came to characterize British control over forests after the 1860s. Thus, British administrators had great trouble in ascertaining the nature of "property rights" in the forests of the area when they first took charge of it. It was both easy and difficult for them to assert the right of the state to take over forests; easy because there was no formal right to be challenged, difficult in the sense that it was hard for them to justify state ownership of forests in light of the fact that the control that former rulers had exercised over them was hardly absolute, their control being largely symbolic.[34]

In this section I summarize the evidence I have gathered so far on the existence and nature of forest commons in Colonial Kumaon. In the following section I will analyze the approach taken by British administrators to rights to the forest held in common by village communities. In particular, I will try to show how an absolute definition of state property was imposed on the forests of Kumaon, compromising the age-old, albeit loosely held, structure of common rights of grazing and wood-cutting in the forests.

Hinting at the survival of cooperative arrangements, a gazetteer acknowledges, as late as in 1910, that "the people are on the whole not ill-disposed towards protection."[35]

One of the first accounts of a forest commons looked after by the village headman - the *Padhan* - is to be found in a memo of one of the first conservators of the forests of Kumaon, G.F.Pearson:

> "The range above Upreekot contains one of the finest Oak forests which I have seen in the hills...it covers about 250 or 300 acres... the growth of the trees is exceedingly favourable, and the young trees numerous... The growth of timber here is fully equal to the best specimens in Jaunsar. The care of the forest is entrusted to the *Padhan* of the village, who says he every year takes some precautions against fire. It would be better to make him a small allowance, and hold him practically responsible."[36]

However, ever since the 1878 Indian Forest Act, the state had shown some interest in creating village forest commons. To provide villagers with necessary forest produce, the idea of "Village forests" had been floated by administrators. The following paragraph can be found in the proceedings of an early Forest conference:

> "In some parts of India... where the old national system of village communities has been maintained, no measure is likely to prove more beneficial to the country or better calculated in every way to improve the moral and material condition of the people than the formation of true communal forests."[37]

Brandis added:

> "We cannot expect that the village communitites of India will be at once in a position to manage their forests on strict conservancy principles, but if we at present undertake the task of managing these forests for them, and if we succeed in establishing a single system of cutting and grazing by rotation, then a time will undoubtedly come when the people will be exceedingly thankful to those who have established communal forests in India" (ibid., p.35).

Baden-Powell wrote: "the day will probably come in India when village-bodies will hold regular forest-estates"[38]. He added: "..just as in Europe we find forests

made over to cantons, communes, and institutions so in time we may hope to see villages or groups of villages regularly owning well-managed forests" (ibid., p.237).

But he unwittingly revealed his lack of recognition of surviving cooperative arrangements when he spoke of

> "forests, which are real and fully constituted; but then they are only some of the state forests allowed by the Act to be dealt with by "assigning the rights of government" therein, to certain village communities...1 am not aware that this has ever been done in India" (ibid., p.237).

He was obviously looking for a system of forest management which had a legally well-grounded notion of common property as its guiding spirit. Under this cognitive lens, a customary cooperative arrangement, with well-understood, if often tacit, rules of access and maintainence, would scarcely qualify as common forest property.

Later in the colonial era - in the early part of this century - a debate raged within the colonial forest bureaucracy of Kumaon over the viability of granting land to villagers for the plantation of desirable species of trees. Land grants were considered in the Nayabad region near Almora. The aim of the bureaucracy was three-fold: to encourage afforestation in the region after the rapid depletion of forests since the middle of the 19th century, to earn revenue for the state and, to help villagers regenerate woodfuel for their own consumption.

While looking into Forest department files in the Uttar Pradesh State Archives in Lucknow, I came across

correspondence between officials of the Kumaon Division between 1907 and 1926. In these letters they discussed various aspects of afforestation by villagers on common land and the problems that such a project faced. Their correspondence reveals interesting facts about the working of cooperative arrangements at that time in the Kumaon Himalayas.

The following is part of a statement that was presented by a civil servant, Mr. V.A. Stowell (Deputy Commissioner of Garhwal at the time), to higher authorities, making a case for land grants to villagers for afforestation on a community basis:

> "In all these villages in Kumaon-Garhwal a certain number of provident villages already have little blocks of jungle, which they have preserved with their own boundaries and now jealously protect against the inroads of adjoining villages. Some of these villages have old *Parwanas* (writs) and orders declaring them exclusively entitled to the product of these jungles and directing that no trees shall be given to any other villages from them. Near Almora, a village (near Dangoli) has an excellent little Sal plantation over the protection of which it has had many disputes."[39]

What can we infer from the description of traditions of community forestry-given -by this civil servant?-Firstly, it directs attention to the viability of common property. Villages in existence at the time already had an accepted system of governance of common forests. Secondly, there were rules of exclusion to prevent other villages from encroaching upon these forests. Thirdly, this system of forest management seems to have had the sanction of erstwhile state authorities who had entitled these villages to the product of the common forests.

The same officer observes in his note of 1907 that he is aware of *Gaon Sanjait* land (land owned by the village as a whole) on which woodfuel reserves had-existed for a long time. He described a village in the district of Pauri which used to grow Chir (pine) on its woodlots. The officer was keen that the village be permitted to grow pine, assuming exclusion of outsiders could be ensured. The officer claimed that the villagers needed sanction from the forest authorities for the right to plant their own trees, to avoid trespass from other villages and to avoid "trouble in proving and defending their rights." The officer argued that such an arrangement would not only lend security of forest property rights to the villagers but also yield revenue for the forest department.

In the same file I found another note by an officer who claimed that

> "wanton damage to forests was more often the work of outsiders than of villagers."[40]

The same officer knew of village forest preserves that were well- looked after;

> "Over large areas...the old customary restrictions on the use of forests had validity and though there was no formal village management practical protection was largely secured by hill conditions and customary limits on user."

Another officer, one Mr. Campbell, proposed that the government give grants of forest lands to village communities to ensure their supply of woodfuel and grass. He suggested that the villagers be given property rights over the land subject to a small payment of revenue to the

government. He advocated avoiding interference with the details of forest management, since the villagers were accustomed to managing their own forests and would gladly do so, assuming the state sanctioned their right to forest property.

The advice given by these officers was finally heeded by higher forest authorities in 1909. Rules were framed for the creation of village forest property. These rules came to be called the Nayabad Grant Rules. It was noted that the framing of the rules in the light of the "Indian Forest Act" of 1878 had proven to be very difficult, since the act was heavily loaded against the forest rights of villages. It was also noted that the proposal to sanction the Nayabad grants encountered considerable opposition among the forest bureaucracy because common forests in Britain were managed by the state for the local villagers.

At any rate, village forest reserves were created on wasteland. The land under these reserves could not be sold, since the woodlots were meant primarily for the use of villagers.

In the files a description of a typical village forest reserve is to be found. The reserve described at considerable length was the Bandini Devi reserve in Jalna, near Almora. The reserve was under informal Panchayat (village government) management. Lopping of certain species of trees, such as oak (which take a long time to grow), was prohibited, especially in hot weather. The reserve was run through a collection of funds from the village, villagers

offering their mite to the common cause of forest protection. There were restrictions on grass cuts allowed to each family. The penalty for infringement of the rules was social boycott or exclusion from the area. Needless to say, other villages were not allowed to tap into the reserves of a certain village.

The rules must have been implemented thereafter, though the records are not explicit on the point. We may assume that such a thing must have happened because files from a later date are to be found which criticize the old rules for their rigidity and for vesting too much control over the village forest reserves in the hands of the forest bureaucracy.

Consider the testimony of a civil servant, Mr. J.R. Pearson, in 1926. Observing the same region 20 years after the time from which thc above extracts are drawn, he complains about the lack of judiciousness in the British government's policy of seizing control over forests from the villagers:

> " . ..the taking o'f control- out of the hands of the villagers had reduced the sense of local responsibility and the means of enforcing protection."[41]

The same officer is surprised by the degree to which community management methods still persisted in the region:

> "I have been struck myself as a new-comer, with the way that communal action... does to some extent survive. One comes across quite considerable areas looked after as village grazing land, or village fodder reserves, in some cases walled in and well-looked after."[42]

The officer criticized the elaborate rules laid down in earlier drafts of the Nayabad grant rules to safeguard the

forests and the rights of villagers, arguing that the rules go into excessive detail. In his capacity as a district forest officer he now granted full rights to the trustees over the land that was granted to them. Also, the right to sell was granted as an inducement to them to increase the value of the land by growing more trees. In general, the rules were made much simpler and more liberal, not taking care of possible infringements as well as the Indian Forest Act of 1878 did. This, however, was because the villagers were granted a greater sense of trust and responsibility for the use of the woodlots.

In other words, in the view of this influential officer, an established arrangement for the management of common forests had been disturbed by the state's attempt to control forests in the region. Users had lost the sense of responsibility with which they had used the forests hitherto. This meant that the cost of enforcement of (the now formal) forest rules had increased because the users were no longer the guardians of their own forests.

Pearson sought to reverse this trend by simplifying the rules in the direction of greater control for the villagers and a diminished role for the forest bureaucracy. This philosophy of decentralization was based on the observation that the villagers were quite capable of managing their forest resources effectively, with a minimum of state support to back their property claims in the event of a dispute.

There were also less formal methods of cooperative management of forests, such as the well-known "sacred groves" that were to be found all over India. A Himalayan Gazetteer from 1881 mentions that Deodar (Himalayan Cedar) was treated as a "sacred" tree and was planted near almost every Kumaon temple.[43] The first Inspector-General of forests, Dietrich Brandis wrote in 1881: "In many districts... sacred groves exist, which are most carefully protected. He added that "the protection and management of natural forests is not altogether unknown."[44]

Common Rights in the eyes of British administrators

Almost every British administrator acknowledged the widespread existence of common rights in the forest, claims to forest produce - especially fuelwood, wood for implements and construction, grass, and fodder - that villagers had customarily exercised since times immemorial. Yet, the administrators claimed that the forests were the property of the state, typically the *Raja* of the area. On the basis of such a view they were able to justify state acquisition of forest land and assert a more absolute right to forest property than had hitherto been the case.

Consider, for instance, the view offered in one of the District Gazetteers: "Forests have from time immemorial been considered the property of the sovereign."[45] And yet B.H.Baden-Powell, one of the eminent jurists of British India, **said this to qualify the above view;**

> "It is...certain that under the old Hindu constitution of society, while no landholder claimed a heritable right in any soil beyond his own holding, rights of

> user, or what were practically such, existed to grazing and wood-cutting in the neighbouring waste."[46]

However, the ambiguities ran deeper. Baden-Powell quotes General Ramsay, Commissioner of Kumaon, in the same treatise as acknowledging that the people

> ""owned their jungle in a way before we came"; and so when we recognized their proprietary right in the cultivated land, the people acquired "a certain right to the use of the forest"."[47]

"Ownership" of the forest by local users was transformed by colonial rule into "a certain right to the use of the forest". The language underwent yet another transformation in the making of thc 1878 Indian Forest Act when "rights" turned into "privileges". These changes in language reflected substantive changes in the status of local users with respect to the forest.

These ambiguities were a direct result of the chasm that existed between thc absolute notions of property that dominated the imagination of European administrators and the much more loosely held structure of common rights to the forest that was the norm in pre-colonial Kumaon. The fact that the forests belonged to the sovereign was more symbolic than real, the link between the ruler and his subjects being quite minimal, apart from his fiscal representatives who would periodically collect duties on forest produce or grazing dues from villages. There was hardly anything resembling a forest bureaucracy that came to be the norm in British Kumaon after the 1870s or so.

In the event, with political power now in their hands, the British 'resolved their early confusions by gradually

legislating that the forested areas of Kumaon were the full-fledged property of the state. The earlier section on the history of forest management in Kumaon describes the legislative and political process through which the state came to have exclusive access to the bulk of good forests in Kumaon.

Conclusion

This paper has tried to illustrate the environmental dangers with which a shift in property regimes is fraught. The advent of British rule in the Kumaon Himalayas signalled the beginning of a new era in the nature and scale of use of forests.

For the first time in the history of Kumaon forests, they were used for large-scale commercial ends, supplying the bulk of the demand for railway sleepers in the rest of India. The early years of commercial exploitation did extensive damage to the forests. The need for conservation and systematic management of forests was realized. The Forest Department was created in the 1860s. Legislation was passed to allow the state to take direct control of the forests.

However, the ascendancy of state property came at the expense of the erosion of customary cooperative arrangements for the use of forests. Increasingly the traditional rights of village communities were compromised. This triggered off a series of forest protests after the end of the last century.

The struggles that took place between the new administrators and local user communities over the use of forests is an early chapter in contested property rights in the area of environmental resources. It illustrates the process through which a certain regime of property in forests (cooperative arrangements) lost legitimacy and another (state ownership) gained ground. In the event, not only did direct state control of forests grow over time; local users lost their erstwhile relationship to accessible forests - woods outside the purview of direct state control - and often plundered them at will.

Institutional erosion turned into institutional confusion when local users did manage to win certain rights for themselves once again in the 1920s. The old norms were no longer in place to make the use of forests sustainable.

Deforestation in the Kumaon Himalayas is to be understood in the light of this institutional crisis.

NOTES

[1] The research on which this paper is based was done in Archives in New Delhi and Lucknow and in various libraries around India. No "Field study" was carried out.

[2] See, for instance, R.Guha and M.Gadgil, "State Forestry and Social Conflicts in British India: A Study in the Ecological Bases of Agrarian Protest", Past and Present, May, 1989. Also see Ajay S. Rawat (ed.), History of Forestry in India, New Delhi, 1991.

[3] Soon after conquering new territory the British rulers used to conduct land surveys for purposes of assessing land revenue. While the focus of such surveys was the assessment of revenue on cultivated land, they also extended their work to forested areas. The reports of administrators engaged in this latter pursuit are the useful Forest Settlement Reports. They not only give information on revenue assessments and related fiscal problems but also provide lists of rights that villagers are deemed to have in the local forests.

[4] I use the term "forest commons" deliberately. Forms of cooperative management of forests in Kumaon changed continuously over the period of this study. From a loosely-held structure of common rights and responsibilities to the forests around the time of British conquest to the relatively formal methods of cooperation embodied in the *Van. Panchayats* of this century, there is quite a jump. The former is hard to categorize as "common property" while the latter definitely fits the description. I use the term "forest commons" to denote the whole spectrum of cooperative forms of forest management. In the taxonomy of systems of property it may be understood as a residual category, after private and state property have been taken note of; an important caveat is to prevent confusion between the "forest commons" thus understood, and "open-access commons".

[5] The State of Forest Report 1993, Forest Survey of India, Government of India, Dehra Dun, 1993.

[6] The files are published as part of Selections from the records of the Government of India (Supplement to selections #VIII), Calcutta, 1855. (Henceforth referred to as Selections, 1855.)

[7] "Report on the Metalliferrous Deposits of Kumaon and Garhwal in Northwest India", by W.J.Henwood, in Selections, 1855, p.15.

[8] ibid., p.7.

[9] "Papers regarding the forests and iron mines in Kumaon", in Selections, 1855, p.7.

[10] Batten goes on to say: "These forests, moreover, being for the most part in a flat country are easy of access. Many hundred square miles of unbroken and untouched forest are available for mining operations in the Kumaon Bhabar." (Batten, ibid. p.13)

[11] Selections, 1855, p.12.

[12] Selections, 1855, p.13.

[13] Batten, ibid., p.6.

[14] Batten, ibid., p.9. The view is echoed by several other administrators of Kumaon. See, for instance, Somerby's note in Selections, 1855, p.49. Strachey's views have already been presented.

[15] ". . . their idcological animosity towards uncultivated lands was very deep... The extension of the cultivated acreage was an index by which the British evaluated the success or failure of their policies. Forests were a landscape to be conquered and tamed", write Rangarajan in a recent article on the perception that British administrators had of forests vis-a-vis cultivated land. (See Mahesh Rangarajan, "Imperial agendas and India's forests: The early history of Indian forestry, 1800-1878", Indian Economic and Social History Review, 31, 2, 1994, p.153.)
In a gazetteer from 1910, one finds the author citing the extension of agriculture as one of the prime causes of deforestation. (See H.G.Walton, British Garhwal: District Gazetteer, Allahabad, 1910).

[16] This was the view of H.Ramsay, Commissioner of Kumaon after the 1850s. See Ramsay's letter to Batten in Selections, 1855, p.10.

[17] Strachey, in Selections, 1855, p.14.

[18] S.D.Pant, The Social Economy of the Himalayas (1936, Reprint, Delhi, 1988), p.86.

[19] "Memo by D.Brandis, IG of Forests, on the Present Condition of Forests in India", National Archives of India (Henceforth, NAI), Revenue and Agriculture Department (Henceforth R&A D), (Forests), Sept.1881, Progs.#30-32, Part "B", p.6.

[20] Chetan Singh, "Humans and Forests during the Medieval Period"; in Ajay S. Rawat (ed.), History of Forestry in India, New Delhi, 1991, p.169.

[21] M.D. Upadhyaya, "Historical Background of Forest Management and Environmental Degradation in India", in Ajay S. Rawat (ed.), History of Forestry in India, New Delhi, 1991, p.117.

[22] Recent research certainly points in this direction. See, for instance, Rawat ed. op. cit. and R.Guha and M.Gadgil, "State Forestry and Social Conflicts in British India: A Study in the Ecological Bases of Agrarian Protest", Past and Present, May 1989.

[23] For an extended account of the agenda of scientific forestry see R.Guha, The Unquiet Woods, Oxford, Delhi, 1989, Chapter 3.

[24] H.G.Walton, British Garhwal: District Gazetteer, Allahabad, 1910, p.14.

[25] H.R.Neville, Nainital: A Gazetteer, Allahabad, 1904, p.19.

[26] The term "reserved" in this context is to be understood informally because the legislation which allowed the government to create formal forest reserves came later.

[27] G.B.Pant, The ForestProblem in Kumaon, Allahabad, 1922, p.39. Pant, in fact, argues that such an appropriation of land under the category of protected forests was illegal. (See Pant 1922, p.39.)

[28] See G.B.Pant, The Forest Problem in Kumaon, Allahabad, 1922, p.39.

[29] Rawat (1991), p.286.

[30] Ramachandra Guha's book The Unquiet Woods (Delhi, 1989), documents these struggles in great detail.

[31] Rawat (1991), p.309-10.

[32] Rawat (1991), p.310.

[33] In the words of a recent author, "...a legacy of suspicion and resistance was created between the people and the authorities which even independence in 1947 could not entirely cure." (Rawat, 1991, p.314.)

[34] The dilemmas faced by the administrators are candidly analyzed by B.H.Baden-Powell in Land Systems of British India, Vol.11 (1892, Reprint, Delhi, 1974) and in Forest Law (London, 1893). His analysis is riddled with ambiguities such as the following: "Jungle or grazing land was included in the nominal boundaries of villages - that is, it was known by the same name; but it does not follow that it belonged, in any proprietary sense, to the village"(Land

Systems, p.310). The fact that forests were included within the boundaries of villages is significant. It suggests that forests were not open-access commons: only those living within the village were allowed to use the forests.

Baden-Powell proceeds to assert that the inclusion of forests in village areas doesn't interfere with "the government's right to offer clearing-leases in such waste." (op. cit., p.310). See the quotation before endnote 14 as well.

[35] Walton, op. cit., p.16.

[36] G.F.Pearson, "Deodar forests at the head of Jumna and Tonse rivers", Dec.5, 1869, in Selections from the Records of the Government of India, (Calcutta, 1870). As we will see later, effective local, cooperative management of forests is often cited by administrators to argue for decentralized forest administration in order to achieve greater efficiency in, among other things, increasing the revenue yield of forests.

[37] Report of the Proceedings of the Forest Conference held at Simla, Oct.1875, edited by D.Brandis and A.Smythies, Calcutta, 1876, p.35.

[38] B.H.Baden-Powell, Forest Law, London, 1893, p.203.

[39] "Copy of a note on Nayabad grants for reafforestation purposes, esq., Indian Civil Service, Deputy Commissioner of Garhwal", 1907, in File #83, Rules for Communal Forests, 1909, U.P. State Archives (UPSA), Lucknow. All the material on the Nayabad grants is taken from File #83, UPSA, Lucknow.

[40] The quotation is taken from a letter by an officer, Mr.Pauw, to the Commissioner on Special Duty.

[41] "Note on history of proposals for management of village wastelands", written by J.R.Pearson, Commissioner on Special 'Duty, Dec.1926.

[42] ibid.

[43] See E.T.Atkinson, Himalayan Gazetteer, Vol.1, Partl, p.325, Allahabad, 1881.

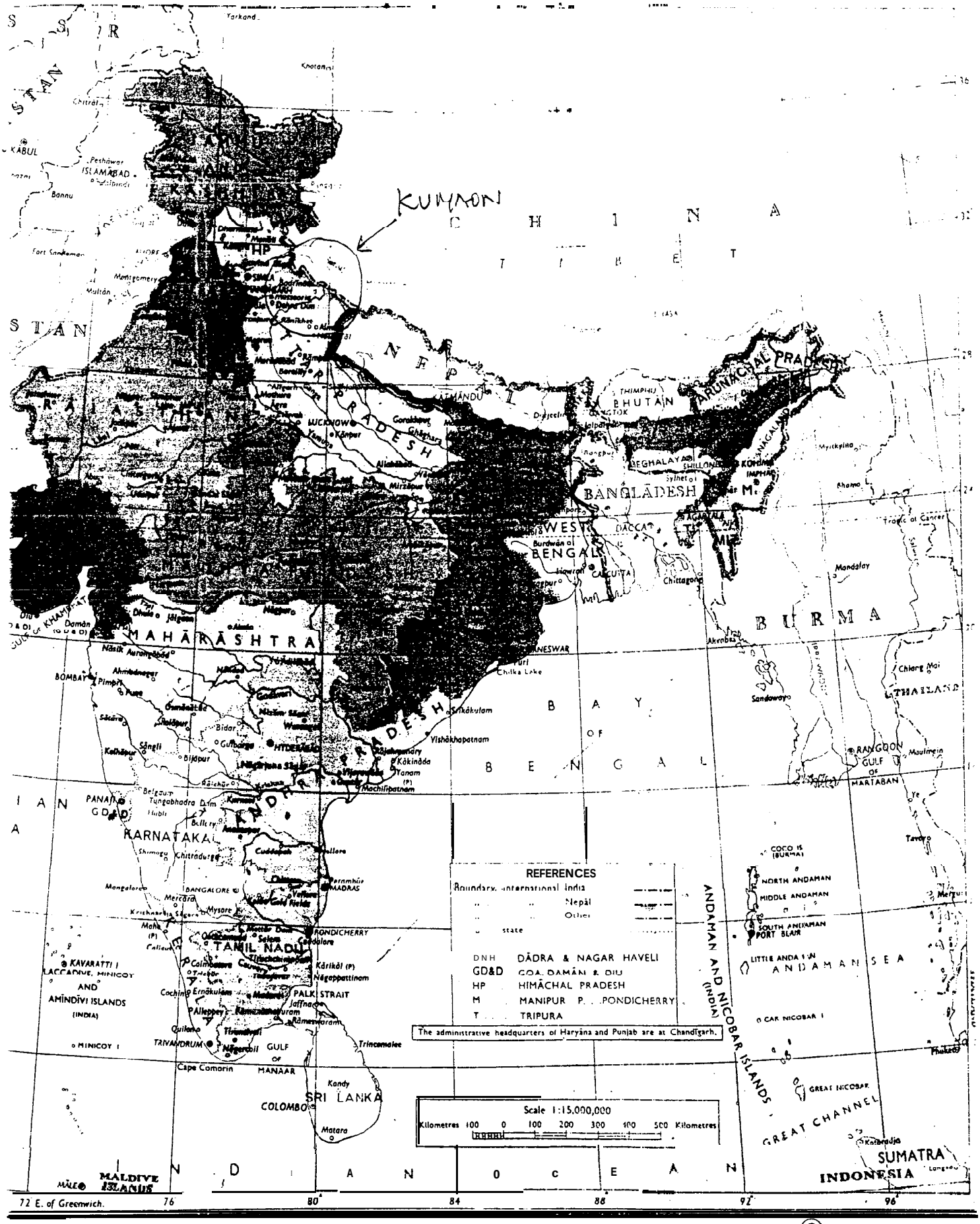
[44] Memo by Brandis, 1881, op. cit.

[45] Walton (1910), p.10.

[46] B.H.Baden-Powell, Land Systems of British India, Vol.II,(Reprint, Delhi, 1974).

The early administrators often described all uncultivated or non-arable land as "waste". This often included thickly wooded areas too. The description changed over time with the expansion of commercial forestry.

[47] ibid., p.310.



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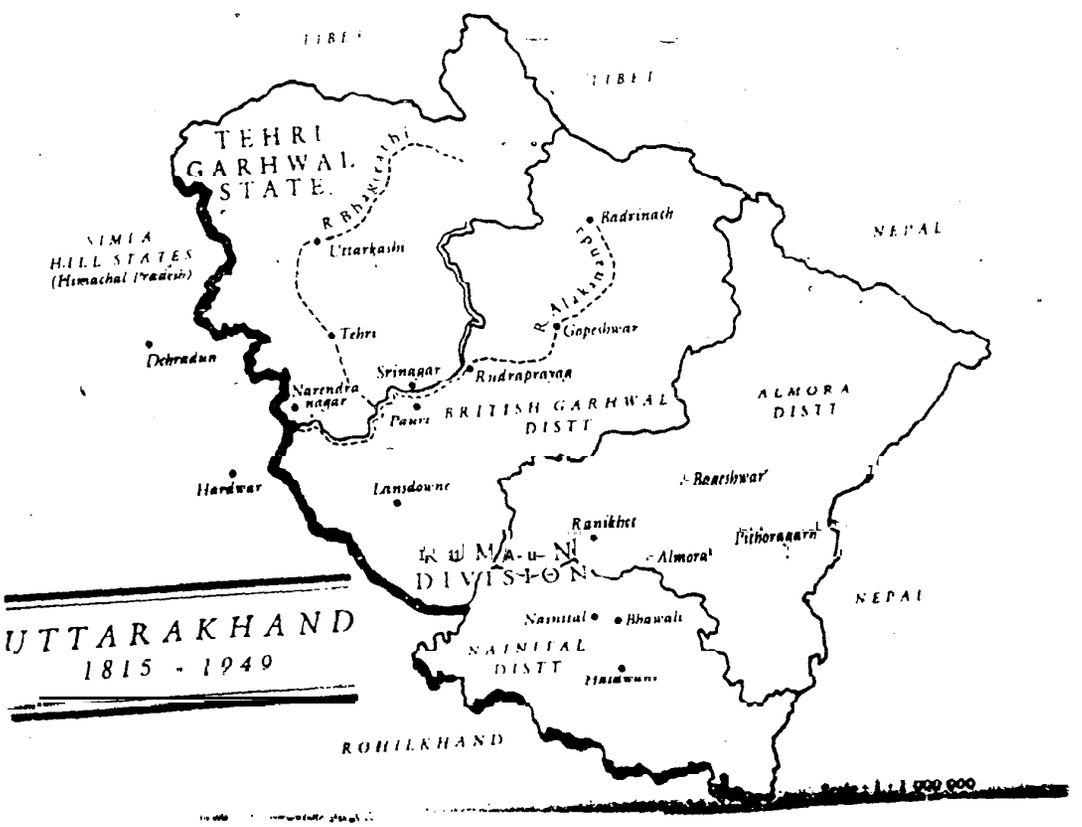
APPENDIX II


TIBET
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Badrinath
NEPAL
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Tehri
Gopeshwar
Dehradun
Srinagar
Rudraprayag
Narendra nagar
Pauri
BRITISH GARHWAL DISTT
ALMORA DISTT
Haridwar
Lansdowne
Ranikhet
Pithoragarh
Almora
KUMA-U-N DIVISION
NEPAL
Nainital
Bhawali
NAINITAL DISTT
Haldwani
ROHILKHAND
UTTARAKHAND
1815 - 1949